NEW APPLICATION

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BEFORE THE ARIZONA CORPORATION COMMISSION

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IN THE MATTER OF THE APPLICATION OF MORENCI WATER & ELECTRIC COMPANY – ELECTRIC DIVISION – FOR APPROVAL OF ITS 2013 AND 2014 RENEWABLE ENERGY STANDARD TARIFF IMPLEMENTATION PLAN AND REQUEST FOR PARTIAL WAIVER

DOCKET NO. E-01049A-12-0281

APPLICATION AND REQUEST FOR PARTIAL WAIVER

The Morenci Water and Electric Company ("MWE") hereby submits its proposed 2013 and 2014 Renewable Energy Standard Tariff Implementation Plan ("2013-14 REST Plan") – including its Plan for Distributed Renewable Energy Resources – required by A.A.C. R14-4-1813 under the Renewable Energy Standard Tariff Rules ("REST Rules"). MWE requests approval of its 2013-14 REST Plan. MWE further requests a two-year extension of the continued partial waiver to exclude energy sales to Freeport-McMoRan Copper & Gold, Inc. ("FMI") mining operations at Morenci and Safford from calculating both the Annual Renewable Energy Requirement under A.A.C. R14-2-1804 and the annual Distributed Renewable Energy Requirement under A.A.C. R14-2-1805. Finally, given the time and expense it takes MWE to develop and file its REST Plan, and given that it has no plans to change its implementation for renewable energy for the next two years, MWE requests that this plan be approved through 2014, with its next filing (for 2015 and 2016) due July 1, 2014.

I. INTRODUCTION.

In terms of number of customers, MWE is a small electric utility that serves approximately 2,372 customers in and around the town-site of Morenci and the Town of Clifton, in Greenlee County, Arizona. MWE serves the FMI mine at Morenci per an electric services agreement approved in Decision No. 66937 (April 21, 2004). MWE also serves the mine owned and operated

by FMI at Safford as approved in Decision Nos. 69200 and 69211 (December 21, 2006). MWE's customer base consists of approximately 2,104 residential customers and 266 non-residential customers with demand under 3 MW. Currently, approximately 1,171 of MWE's residential customers are renters within MWE's town-site. Further, FMI mining operations at both Morenci and Safford have demand over 3 MW each month. Energy sales to mining operations at Morenci and Safford, in aggregate, average approximately 98 to 98.75 percent of MWE's total kWh sales per year. Presently, MWE owns no generation and procures all of its power from the wholesale market to meet load. This has also been the case historically.

II. PARTIAL WAIVER REQUEST.

In Decision No. 70303 (April 24, 2008), MWE requested and received a partial waiver excluding the energy sales to FMI Morenci and FMI Safford from the calculations of the Annual Renewable Energy Requirement under A.A.C. R14-2-1804 and the annual Distributed Renewable Energy Requirement under A.A.C. R14-2-1805. The Commission has extended that waiver every year since 2008 – most recently for 2012 in Decision No. 72893 (February 17, 2012). MWE requests that the partial waiver remain in effect for 2013 and 2014.

MWE's load profile is and remains unique and is significantly different from any other electric utility in the state. MWE's load profile is likely to remain similar for the next two years. No other utility has had 98 to 99 percent of its energy sales come from two customers. As detailed in its proposed 2013-14 REST Plan, MWE believes it would have to budget approximately $36.7 to $36.8 million to meet its 2013 renewable energy requirements if there was no waiver. That amount would have to be funded by less than 3,000 customers – most of whom are residential and small commercial customers. And that budget would have to increase significantly in 2014, absent a waiver of mining load from the requirements.

To include the sales to FMI mining operations to Morenci and Safford would be unduly burdensome to all of MWE's customers, especially if the surcharge rates through MWE's RESS were to be raised substantially. Given the costs for renewable resources and the state of the market for renewable resources, the current surcharge rate and caps would be insufficient to cover the

amount of energy that must be obtained from Eligible Renewable Energy Resources and to pay incentives for eligible Distributed Renewable Energy Resources. Even so, MWE does not have enough customers to install the requisite amount of eligible Distributed Renewable Energy Resources needed to meet the requirement absent the waiver. Further, virtually all of MWE's service territory consists of terrain that is not suitable for any renewable energy facilities; and it is not guaranteed any renewable facility established elsewhere in the state for MWE's benefit could meet the deliverability standard under R14-2-1803.F. In short, MWE is and will continue to be in a unique situation justifying a waiver of mining load from the REST Rules requirements.

Under MWE's proposal, mining operations at Morenci and Safford would still provide funding in accordance with the MWE's RESS. Both would also be eligible to participate in MWE's Plan for eligible Distributed Renewable Energy Resources also described below. Without the partial waiver, MWE would have to request a significant increase in the surcharge per-kWh rate and caps over the present per-kWh rate and caps (in order to meet a budget well over 60 times as much as proposed in the plan for 2013) – to have the funding available to attempt to meet its REST Rules requirements. Customer demand within MWE's service territory simply does not justify a surcharge that excessive from its customers (over 200 times the current per-kWh rate and caps). Further, no other Arizona utility has rates for renewable energy nearly that high, and such an increase could also affect the economic viability of future mining operations.

III. OTHER ASPECTS OF MWE'S 2013-14 REST PLAN.

First, MWE proposes to maintain the per-kWh rate to $0.004988 – and to maintain the caps at: (1) $1.05 per month for each residential customer; (2) $39.00 per month for each non-residential customer; and (3) $500.00 for each non-residential customer over 3 MW demand in its Renewable Energy Standard Surcharge. Under the current rate and caps, the average residential customer pays about $1.05 per month, and the average non-residential customer will pay approximately $23.56 per month. MWE anticipates collecting between $50,000 and $60,000 annually under the current rate and caps. MWE proposes to maintain this rate and caps for 2013 and 2014.

Second, MWE is proposing to maintain the incentives as detailed in its proposed 2013-14 REST Plan as they were in 2012. MWE had three non-residential customers installed distributed photovoltaic facilities by 2012. These facilities remain operational in 2012. MWE believes maintaining high incentives for distributed renewable energy resources may encourage others to participate in MWE's distributed renewable energy program. MWE will maintain its incentive offerings in 2013 and 2014, which are some of the highest incentives in Arizona.

Third, MWE provides details within its plan on its efforts and communications with both mining operations customer at Morenci and Safford regarding distributed renewable generation opportunities on their properties, as its report required by Decision No. 72893. MWE remains willing to work with the mining properties should any opportunities arise for them to develop distributed renewable generation facilities.

IV. REQUEST FOR TWO-YEAR APPROVAL.

MWE's implementation plans from 2008 through 2012 have been consistent, in procuring Eligible Renewable Energy Resources and offering incentives for eligible Distributed Renewable Energy Resources. MWE plans to continue these for at least the next two years and has no plans to alter or change its implementation plan for renewable energy through 2014. It takes MWE considerable time and resources to develop and file its REST Plans each year. Because MWE's plan is consistent, because it has no plans to change offering distributed renewable energy incentives for eligible resources from current levels, and due to the time and resources it takes to seek approval, MWE believes that its 2013-14 REST Plan, and the waiver request, should be approved through 2014. If approved, MWE would file its next REST Plan on July 1, 2014 (for 2015 and 2016).

V. CONCLUSION.

MWE commits to working with the Commission and intends to make best efforts to meet the requirements within the REST Rules set forth in A.A.C. R14-2-1801 *et. seq*. MWE therefore requests that the Commission approve its 2013-14 REST Plan – including its Plan for Distributed Renewable Energy Resources and maintaining the funding levels MWE as currently set for its RESS. MWE also requests that the Commission extend its partial waiver to exclude the kWh sales to FMI

mining operations at Morenci and Safford from being included in the calculation of the Annual Renewable Energy Requirement under A.A.C. R14-2-1804, and the annual Distributed Renewable Energy Requirement under A.A.C. R14-2-1805, for 2013 and 2014. Finally, given its particular facts and circumstances, MWE believes its 2013-14 REST Plan should be approved for two years, through 2014.

RESPECTFULLY SUBMITTED this 27th day of June, 2012.

MORENCI WATER AND ELECTRIC COMPANY

By _____

Michael W. Patten
Jason D. Gellman
ROSHKA DEWULF & PATTEN, PLC.
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

Original and thirteen copies of the foregoing filed this 27th day of June 2012, with:

Docket Control
ARIZONA CORPORATION COMMISSION
1200 West Washington Street
Phoenix, Arizona 85007

Copy of the foregoing hand-delivered this 27th day of June, 2012, to:

Lyn A. Farmer, Esq.
Chief Administrative Law Judge
Hearing Division
ARIZONA CORPORATION COMMISSION
1200 West Washington Street
Phoenix, Arizona 85007

Janice Alward, Esq.
Chief Counsel, Legal Division
ARIZONA CORPORATION COMMISSION
1200 West Washington Street
Phoenix, Arizona 85007

Steve Olea
Director, Utilities Division
ARIZONA CORPORATION COMMISSION
1200 West Washington Street
Phoenix, Arizona 85007

Morenci Water and Electric Company

2013 and 2014 Renewable Energy Standard Implementation Plan ("2013-14 REST Plan")

1. Background

The Morenci Water and Electric Company ("MWE") submits its 2013-14 REST Plan to comply with the Renewable Energy Standard Tariff Rules ("REST Rules").

In terms of number of customers, MWE is a small electric utility that serves about 2,372 customers in and around the town-site of Morenci and the town of Clifton, Arizona. Its customer base consists of an average of 2,104 residential customers and 266 non-residential customers. Currently, about 1,171 of the residential customers are renters within the Morenci town-site. Only 2 of the non-residential customers have demand over 3 MW per month for three consecutive months. Presently, MWE owns no generation and procures all of its power from the wholesale market to meet load.

MWE lacks the resources, personnel and expertise to own, operate, or develop renewable generation. Therefore, MWE has no current plans to develop or own any renewable generation for the foreseeable future. Even so, MWE will continue to procure Eligible Renewable Energy Resources and offer incentives for eligible Distributed Renewable Energy Resources.

Excluding the mine load from the requirements – continuing the waiver.

MWE requested and received a partial waiver excluding the load for mining operations at Morenci and Safford from the calculation of the Annual Renewable Energy Requirement under A.A.C. R14-2-1804 and annual Distributed Renewable Energy Requirement under A.A.C. R14-2-1805 each year through 2012. MWE is requesting that the waiver remain in effect for 2013 and 2014. This is because MWE's load profile is and remains unique and significantly different from any other electric utility in the state. No other utility has had 98% to 99% percent of its energy sales come from two customers. MWE anticipates that between 98% and 98.5% of its energy sales will be for mining operations at FMI's Morenci and Safford sites in 2013 and in 2014.

To include sales for FMI mining operations at Morenci and Safford would either mean the MWE would have to raise rates and caps to unsustainable levels for its customers; or the amount MWE obtained through its renewable energy surcharge (the Renewable Energy Standard Surcharge or "RESS") would be insufficient to cover the cost to procure energy from Eligible Renewable Energy Resources to meet the requirements in the REST Rules. The premium for renewable energy is still at a level where costs to procure it will be substantial in 2013 and beyond.

Without the partial waiver, MWE believes it would need to spend approximately $2,142,000 to purchase renewable energy – assuming a $45 per MWh premium for

47,600 MWh – to meet its 2013 Annual Renewable Energy Requirement. Further, to meet its annual Distributed Renewable Energy Requirement (predicted to be 20,400 MWh in 2013 without the partial waiver) through the installation of solar photovoltaic systems, MWE anticipates that it would need to expend approximately $34.6 million.[1] This means MWE would have to spend about $36.7 to $36.8 million in 2013 from approximately 2,336 customers (only two of which are large industrial customers) to have the funding available to meet the 2013 REST Rules requirements if the partial waiver is not granted.[2] For 2014, MWE estimates needing between $41.2 and $41.3 million to meet the REST requirements.

Most of MWE's service territory is terrain where mining operations are currently taking place. Further, as discussed in previous years, most of MWE customers have natural gas water and space heating, and do not have HVAC. Also, the MWE service territory is not one with strong wind resources, particularly within the Town of Clifton, which is largely located within a canyon. Finally, MWE has had three photovoltaic solar installations in its service territory, but there are not enough rooftops to meet the distributed renewable generation requirement if the mining load is not waived. For these reasons MWE believes continuing the waiver is warranted.

If the partial waiver were not granted for 2012, MWE anticipates it would need approximately $36.7 to $36.8 million to meet the REST Rules Requirements, or more than 60 times the amount of funding MWE would need to meet the requirement absent the waiver.[3] This would result in substantially higher rates and caps for MWE customers that would never be justified by the demand or the feasibility of renewable energy within or being delivered into its service territory. MWE is aware that the rates and caps for customers for some other electric utilities regulated by the Commission are higher than what MWE currently charges its customers. Even so, the typical MWE residential customer earns less income than the average residential customer for other Arizona electric utilities. The rates and caps would have to be substantially higher than the highest current rates and caps for any other regulated electric utility. This is

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[1] This assumes the cost of installing solar photovoltaic systems with an average installation cost in Arizona of $6.20 per watt as reported in the Lawrence Berkeley National Laboratory (LBNL) report entitled "Tracking the Sun: The Installed Cost of Photovoltaics in the U.S. from 1998-2010" Ryan Wiser, Naim Darghouth, Galen Barbose and Joachim Seel, (LBNL-5047E, September 2011) available at http://eetd.lbl.gov/ea/ems/reports/lbnl-5047e.pdf. Further, these figures assume a 25% annual capacity factor and that MWE provides incentives equaling 60% of the total cost to install the requisite number of systems to meet the requirements each year. Finally, depending on the number of systems already installed still in operation from previous years, the amount in incentives could be significantly less the following year.

[2] Excluding any costs for administration, commercialization and integration and any other necessary expenses to implement MWE's REST Plan.

[3] Without the waiver, MWE anticipates needing to budget a total of approximately $36.7 to $37.0 million in 2012. This is more than 60 times the $599,605 MWE anticipates needing with the waiver granted to meet the REST Requirements assuming customer interest in distributed generation is sufficient to meet the requirement. MWE anticipates significantly more in 2014, without the waiver.

essentially why MWE continues to seek a waiver and believes the waiver is justified and in the public interest.

Under MWE's proposal, FMI mining operations at Morenci and Safford would still provide funding in accordance with MWE's RESS described below. They would also be eligible to participate in MWE's Plan for Distributed Renewable Energy Resources also described below.

Request for approving MWE's REST Plan through 2014 (for two years).

It takes considerable time and expense for MWE to develop and file its REST Plan each year. Further, MWE is not planning to change its programs within the plan for at least the next two years. MWE does not anticipate needing to alter the per-kWh rate or caps its customers are charged for implementing the programs in this plan. For this reason, MWE applied for a two-year approval for its REST Plan, with its next filing to take place July 1, 2014 for 2015 and 2016.

2. Annual Renewable Energy Requirement

MWE is required to submit an REST Plan annually on July 1st outlining how it intends to comply with the Rules. The REST Plan must include the following information:

- A description of Eligible Renewable Energy Resources to be added per year for the next 5 years. A description of each technology, the kW and kWh to be obtained and the estimated cost per kWh and total cost per year.
- A description of how each Eligible Renewable Energy Resource is to be obtained.
- A proposed evaluation of whether MWE's existing funding will allow it to recover its reasonable and prudent costs of complying with the REST Rules requirements.
- A line-item budget allocating specific funding for eligible Distributed Renewable Energy Resources, for the Customer Self-Directed Renewable Energy Option, for power purchase agreements, for utility-owned systems, and for each Eligible Renewable Energy Resource described in the REST Plan.

The REST Rules require that 4.00% of total kWh retail sales be from eligible Renewable Energy Resources in 2013, 4.50% in 2014, 5.00% in 2015, 6.00% in 2016 and 7.00% in 2017. The REST Rules further require that 30% of the total Renewable Energy Resource Requirement come from Distributed Renewable Energy Resources for each year.

Renewable energy requirements without the waiver

MWE forecasts that its energy sales for 2013 and for 2014 to be approximately 1,700,000 MWh. Based on that forecast, MWE anticipates that its Annual Renewable Energy

Requirement will be as follows – if energy sales to FMI Morenci and FMI Safford are included in the requirement:

- approximately 68,000,000 kWh in 2013;
- approximately 76,500,000 kWh in 2014;
- approximately 85,000,000 kWh in 2015;
- approximately 102,000,000 kWh in 2016;
- approximately 119,000,000 kWh in 2017; and
- approximately 255,000,000 kWh after 2024.

MWE anticipates its annual Distributed Renewable Energy Requirement would be as follows:

- approximately 20,400,000 kWh in 2013;
- approximately 22,950,000 kWh in 2014;
- approximately 25,500,000 kWh in 2015
- approximately 30,600,000 kWh in 2016;
- approximately 35,700,000 kWh in 2017; and
- approximately 76,500,000 kWh after 2024.

Renewable energy requirements with the waiver

MWE's anticipates that its energy sales – excluding those to FMI Morenci and FMI Safford – will equal approximately 32,000 MWh based on forecasts for energy sales in 2013 and 2014 (*i.e.*, about 1.25 percent of total energy sales). Historically, 98.00% to 98.75% of MWE's energy sales were for mining operations at Morenci and Safford. MWE anticipates that its Annual Renewable Energy Requirement will be as follows:

- approximately 1,280,000 kWh in 2013;
- approximately 1,440,000 kWh in 2014;
- approximately 1,600,000 kWh in 2015;
- approximately 1,920,000 kWh in 2016;
- approximately 2,240,000 kWh in 2017; and
- approximately 4,800,000 kWh after 2024.

MWE anticipates its annual Distributed Renewable Energy Requirements will then be as follows:

- approximately 384,000 kWh in 2013;
- approximately 432,000 kWh in 2014;
- approximately 480,000 kWh in 2015;
- approximately 576,000 kWh in 2016;
- approximately 672,000 kWh in 2017; and
- approximately 1,440,000 kWh after 2024.

3. Plan for Eligible Renewable Energy Resources (non-distributed).

In 2009, MWE spent approximately $141,000 for the purchase and delivery of renewable energy and the acquisition of Renewable Energy Credits (RECs) to its service territory. This purchase allowed MWE to meet its projected Annual Renewable Energy Requirement through 2012. For 2013, MWE will be procuring additional renewable energy and RECs for purchase and delivery – which may include solar, geothermal, wind and biomass – to meet its requirements. Because of its small size and due to the impracticalities of trying to procure its requirement for just one year, MWE will likely procure renewable energy in 2013 to cover its Annual Renewable Energy Requirement for multiple years (possibly through 2015 or 2016).

MWE intends to procure such resources through one or multiple bi-lateral transactions with one or more counterparties. MWE cannot state with any specificity how much it will procure of any one resource. This is because of many factors – including uncertainties related to operational performance, deliverability of such resources and sufficiency of transmission. Further, renewable generation has the potential to not meet scheduled commercial operation and may not match needed delivery schedules and planned quantities. MWE is aware of the potential for renewable contract termination or major delays in delivering renewable energy. Nonetheless, MWE will make best efforts to procure the necessary amount of Eligible Renewable Energy Resources to meet its requirements for 2013, 2014 and future years.

MWE maintains that the pricing for it to procure and deliver such renewable generation to its service territory is at a premium of approximately $45 per MWh over generation from Conventional Energy Resources. This is based on the cost of generation and the cost to deliver the energy and meet the requirements of R14-2-1803.F. *The rationale for using the $45.00/MWh as the cost premium for renewable generation is due to the last procurement that MWE completed included a $45.00/MWh premium. That could change when MWE procures energy from Eligible Renewable Energy Resources in 2013, but remains a reliable estimate as of mid-2012.*

MWE has and continues to procure eligible energy from generation on per-kWh (energy) basis. Based on MWE's information and belief, the following tables best summarize the description of kWh, and cost above conventional resources for MWE – excluding the sales to FMI Morenci and FMI Safford:

Planned Renewable Generation Procurement (MWh)

Year	2013	2014	2015	2016	2017	Total
Energy – Prospective Procurement	896	1,008	1,120	1,344	1,568	5,936

Cost Above Conventional Generation ($'s)[4]

Year	2013	2014	2015	2016	2017	Total
Total Energy – Prospective Procurement	40,320	45,360	50,400	60,480	70,560	267,120

The above-generation cost is an estimate based upon MWE's experience in its prior renewable energy procurements. Given the uncertainties with MWE procuring eligible renewable generation, costs may vary significantly going forward.

4. Plan for eligible Distributed Renewable Energy Resources.

MWE will continue to offer incentives to customers to encourage the promulgation of eligible Distributed Renewable Energy Resources. These payments are designed to defray some of the costs of a system designed to offset a customer's typical load. Many of the incentives MWE will continue to offer are above what is being offered by other Arizona electric utilities. To date, three non-residential distributed photovoltaic systems within its service territory are operational. These include the Kempton Chevrolet Ltd. facility at 540 North Coronado Boulevard, Kempton Chevrolet Ltd. at 556 North Coronado Boulevard (44.00 kW at a total installed cost of $50,000 and 39.00 kW at a total installed cost of $40,000). There is also a PV installation at the parking lot for the Town of Clifton town hall. The Company intends to continue to notify its customers of the availability of incentives.

MWE understands that mining operations have multiple photovoltaic installations located around exempt customer premises ranging in size from 10 to 260 Watts. MWE further understands the installed capacity to equal 9.3 kW. No funding from MWE's RESS was provided for these installations. Other than what is provided in the following section, MWE does not have any further information regarding these installations in its possession or control.

Report on communications with FMI Morenci and FMI Safford on potential for customer-sited distributed renewable generation.

Decision No. 72893 (February 17, 2012) that approved MWE's 2012 REST Plan required MWE to work cooperatively with FMI Morenci and FMI Safford to explore opportunities for customer-sited distributed renewable generation facilities and to prepare a comprehensive report documenting the discussions. This section of MWE's 2013-14 REST Plan is that report.

MWE works closely with FMI Energy Services (which also is responsible for procuring power that will ultimately be provided to FMI Morenci and FMI Safford) and purchases approximately 120 MW of capacity and energy from FMES on a month to month contract entered into on July 1, 2009. This supplies about one-third of MWE's total requirements – both to serve its mining load and to serve its remaining customers. MWE purchases the remaining energy requirements from Tucson Electric Power Company on a

[4] Based on a premium for renewable generation at about $45 per MWh.

month-ahead, day-ahead, and hour-ahead basis. The monthly PPFAC reports that MWE files include invoices for which it obtains its supply. As a result, MWE is in constant communication with FMI Morenci and FMI Safford.

MWE has made representatives of FMI Morenci and FMI Safford aware of its requirement to work cooperatively with them regarding opportunities to explore distributed renewable generation on mining operations properties, should it become feasible to do so. MWE has made them aware numerous times of the available funding collected through the renewable energy surcharge for eligible resources.

MWE has been informed about multiple distributed generation facilities on FMI properties. Presently there are approximately 9.3 kW small solar installations at the Morenci Mine for remote instrumentation and communication equipment. The estimated annual generation from this equipment is 12,000kWh (not metered). The specific installations are detailed in the following tables:

Slope Stability Solar Usage				
Qty.	Wattage Rating	Total Wattage	Device	Description
4	65	260	Extensometer	Wire line deformation monitor
36	10	360	Piezometer	Water well level monitor
1	65	65	Flow Meter	Flow meter on pumping well
4	260	1040	Robotic Pit Slope Monitor	Automated total station monitoring of fixed targets
2	130	260	Rover-Robotic Pit Slope Monitor	Portable automated total station monitoring of fixed targets from multiple locations
Total Wattage		**1985**		

Radio Shop Solar Usage				
Qty.	Wattage Rating	Total Wattage	Device	Description
66	75	4950	Mesh Trailers	
4	87	348		
21	75	1575	Novariant Trailers	
14	130	1820		
2	75	150	Trimble Trailers	
11	87	957		
2	87	174	Upper Eagle Creek Radio	
Total Wattage		**3101**		

MEH Project Solar Usage				
Qty.	Wattage Rating	Total Wattage	Device	Description
12	50	600	MEH Flow Meters	6 units, each with 2 solar panels
72	50	3600	MEH Well Monitor Stations	36 units, each with 2 solar panels
Total Wattage		**4200**		

Total Wattage	**9286**

Neither FMI Morenci nor FMI Safford received any incentives for these installations, and MWE does not count them toward its distributed renewable energy requirement.

At present, MWE has been informed there are no specific proposals received by either FMI Morenci or FMI Safford to develop additional distributed renewable generation. MWE understands from conversations with those representing mining operations that most of the land on mining property is currently being used for, or is planned on being used for mining operations. Further, MWE has been informed that most of the terrain is not suitable for any larger-scale distributed generation beyond what has already been installed (and is detailed in the above tables). MWE understands that both mining operations will continue to consider specific proposals made by developers, both on-and-off site, and MWE will be ready to facilitate any such development that may go forward, should it be feasible for the mining operations at either Morenci or Safford to do so.

Types and Requirements for Eligible Distributed Renewable Energy Systems

Examples of eligible Distributed Renewable Energy Resources include:

- Photovoltaic Systems;
- Solar Space Cooling;
- Non-Residential Solar Water Heating and Space Cooling;
- Small Residential Solar Water Heating;
- Small Residential Solar Space Heating;
- Biomass/Biogas Cooling;
- Non-Residential Solar Daylight; and
- Small Wind Generator.

An eligible distributed renewable energy system (a system applying one or more of the technologies included in A.A.C. R14-2-1802.B.) must include a dedicated performance meter that allows for measurement of system energy production. Systems receiving incentives must be installed according to manufacturers' recommendations and generally

accepted industry standards, as well as comply with all applicable federal, state and local regulations, accepted governmental statutes, codes, ordinances, and accepted engineering and installation practices. Any system must be inspected by the jurisdiction having authority over construction projects in the customer's locale. Any distributed renewable energy system must meet all applicable interconnection requirements. Written confirmation of meeting all applicable standards must be provided to MWE. All major components of the distributed renewable energy system must be purchased no more than 180 days before MWE receives an application for incentive payments from a customer.

Further, some technology-specific criteria reference third-party standards. The requirements of those standards are fully applicable when referenced as part of technology specific criteria. Rapid growth in national and international renewable energy programs is resulting in greater need for the development of standardization in design, implementation, performance measurement, system integrity, and installation. New standards may possibly develop in the near future for technologies included below; MWE may add these new standards as they become available. The following standards or standard development bodies are referenced below as part of the technology criteria for specific eligible Distributed Renewable Generation Resources:

- The Active Solar Heating Systems Design Manual developed by the American Society of Heating, Refrigerating, and Air Conditioning Engineers, Inc. ("ASHRAE") in cooperation with the Solar Energy Industries Association ("SEIA") and the ACES Research and Management Foundation (the Design Manual)

- The select technology specific qualification developed by the California Energy Commission ("CEC")

- Solar Rating and Certification Corporation ("SRCC"). The SRCC criteria and ratings can be viewed at www.solar-rating.org.

- Arizona state boiler regulations (see R4-13-406)

- The Underwriters Laboratory ("UL").

- IEEE-929 standard for utility interconnection of PV systems.

The eligible distributed renewable energy system must meet Company and Arizona Corporation Commission interconnection requirements for self-generation equipment. See http://images.edocket. azcc.gov/docketpdf/0000074361.pdf for these requirements.

Further, MWE reserves the right to modify standards as technology changes on a case by case basis, pending independent laboratory analysis, Professional Engineer ("PE") stamp, or MWE engineering analysis.

For certain systems, MWE may require proper labeling of all system components, including AC & DC disconnects, service panel (outside cover) and breakers (inside the service panel).

Off Grid Systems are not included in this program and are not eligible for incentives.

Technology Specific Criteria

The following *equipment qualifications* listed are mandatory requirements which must be met at the time of project commissioning to receive an incentive from MWE. The *installation guidance* is intended to provide consumers with information on installation and operation practices which are most likely to achieve the systems designed output. MWE now mandates that all projects to be installed according to installation guidance in order to receive an incentive; this is because the installation guidance reflects both industry and utility concurrence on those practices that are important for a technology to best achieve the designed output. MWE may consider additional installation guidance items for inclusion as part of future requirements.

Photovoltaic Systems

Equipment Qualifications (All Systems)

- The Customer System components must be certified as meeting the requirements of IEEE-929 - Recommended Practice for Utility Interface of Photovoltaic Systems

- Photovoltaic components must be certified by a nationally recognized testing laboratory as meeting the requirements of UL-1703 - Standard for Flat Plate Photovoltaic Modules and Panels Systems and be covered by a non-prorated manufacturer's warranty of at least 20 years.

- The inverter must be certified as meeting the requirements of IEEE-1547 - Recommended Practice for Utility Interface of Photovoltaic Systems and it must be UL-1741 certified. Inverters must be covered by a manufacturer's warranty of at least ten years.

- All other electrical components must be UL listed.

- The Customer System design and installation must meet the requirements of all federal, state and local building codes and have been successfully inspected by the building official having jurisdiction. Accordingly, the installation must be completed in accordance with the requirements of the latest edition of National Electrical Code in effect in the jurisdiction where the installation is being completed (NEC), including, without limitation, Sections 200-6, 210-6, 230-70, 240-3, 250-26, 250-50, 250-122, all of Article 690 pertaining to Solar Photovoltaic Systems, thereof, all as amended and superseded.

- The Customer System must meet Company and Arizona Corporation Commission interconnection requirements for self-generation equipment. See http://images.edocket.azcc.gov/docketpdf/0000074361.pdf for these requirements.

- Other equipment qualifications may be specifically required as determined by MWE.

Installation Guidance

- A grid-connected Residential Customer System must have a total solar array nameplate rating of at least 1,200 watts DC and no more than 20,000 watts AC.

- The Customer System installation must meet the following requirements:

  "AN AC DISCONNECT MEANS SHALL BE PROVIDED ON ALL UNGROUNDED AC CONDUCTORS and SHALL CONSIST OF A LOCKABLE GANG OPERATED DISCONNECT CLEARLY INDICATING OPEN OR CLOSED. THE SWITCH SHALL BE VISUALLY INSPECTED TO DETERMINE THAT THE SWITCH IS OPEN. THE SWITCH SHALL BE CLEARLY LABELED STATING "DG SERVICE DISCONNECT."

- The utility meter and utility disconnect will be installed in a location readily accessible by MWE during normal business hours.

- Products must be installed according to manufacturers' recommendations.

- The Customer System photovoltaic panels and modules must face within +/- 100 degrees of true south, and be substantially unshaded from 9 am to 3 pm. System arrays which are facing at an azimuth angle of more than 20 degrees from true south or shaded for more than one hour per day may be subject to a reduced amount of incentive payment. This reduced amount will depend on the array azimuth angle from due south as well as the number of shaded hours.

- The Customer System photovoltaic panels and modules must be fitted at an angle of 0 degrees to 60 degrees from horizontal. System arrays which are fitted with an elevation angle of less than 20 degrees or more than 35 degrees above horizontal may be subject to a reduced amount of incentive payment.

- For Residential Customer Systems, Company will provide a meter and meter socket that will be installed in a readily accessible outdoor location by the Customer between the DC to AC converter and the connection to the over-current device in the Customer's electric service panel. For Non-Residential Customer Systems, Company shall provide the meter only, to be installed in a Customer supplied meter socket to be installed in a readily accessible outdoor location by the Customer between the DC to AC converter and the connection to the over-current device in the Customer's electric service panel. Installer must notify MWE of wiring configuration so that MWE may provide the appropriate 3-phase meter.

- Total voltage drop on the DC and AC wiring from the furthest PV module to the AC meter will not exceed 2%.

- PV panels and DC to AC inverter will be installed with sufficient clearance to allow for proper ventilation and cooling. At a minimum, manufacturer clearance recommendations will be observed. PV modules may be mounted less than four

inches above any surface and an additional inch of clearance for each foot of continuous array surface area beyond four feet in the direction parallel to the mounting support surface, only in cases when arrays are flush-mounted to roof pitch. Otherwise, the four-inch spacing and an additional inch of clearance for each foot of continuous array surface area minimum is required.

- Storage Batteries are not allowed as part of the Customer System unless the inverter is a separate component and MWE can locate the Solar Meter at the inverter's output. If configured otherwise, battery losses will adversely reflect in the annual AC metered energy output. Customer's solar energy generation and energy storage system must meet all of the applicable requirements for Photovoltaic Systems contained within this section.

- The DC to AC inverter used must provide maximum power point tracking for the full voltage and current range expected from the photovoltaic panels used and the temperature and solar insolation conditions expected in MWE's service territory.

- The DC to AC inverter must be capable of adjusting to "sun splash" from all possible combinations of cloud fringe effects without interruption of electric production.

- MWE reserves the right to modify standards as technology changes on a case by case basis, pending independent laboratory analysis, Professional Engineer ("PE") stamp, or MWE engineering analysis.

Additional Guidance

The following resources provide information regarding system installation and performance forecasting:

The California Energy Commission's Guide to Buying a Photovoltaic Solar Electric System at http://energy.ca.gov/reports/2003-03-11_500-03-014F.PDF

The Arizona Consumers Guide to Buying a Solar Electric System at www.azsolarcenter.com/design/azguide-1.pdf

Additional requirements may apply to photovoltaic systems larger than 100 kW.

Biomass/Biogas Electric, Hydroelectric and Geothermal Electric

Equipment Qualifications

- Biomass system installations involving a regulated boiler or pressure vessel are required to comply with all Arizona state boiler regulations; provide a qualifying boiler inspection identification number; and keep all applicable permits in good standing.

- System must include a dedicated performance meter to allow for monitoring of the amount of electricity produced.

- Energy savings and designed output for the system will be verified by submitting either a testing certification for a substantially similar system prepared by a publicly funded laboratory or by submitting an engineering report stamped by a registered professional engineer. The engineering report must provide a description of the system and major components, design criteria and performance expectations, applicable standards and/or codes, and a brief history of components in similar applications. This certification or engineering report must be provided in Step #6 of the Application Process detailed below.

- The system must have a material and labor warranty of at least five (5) years.

- The system must meet Arizona Department of Environmental Quality ("ADEQ") environmental standards.

Installation Guidance

Because of the individual nature of biomass systems, care should be taken to make sure the system complies with all applicable permitting and regulatory requirements, including but not limited to air emission standards and air permit regulations.

Solar Non-Residential Daylighting

Equipment Qualifications

All systems shall include the following components as part of the day lighting system:

- Skylights must adhere to the 2009 International Energy Conservation Code with regard to the U-factor and solar heat gain coefficient and must have a minimum visible transmittance based on the California Public Utilities Commission (CPUC) Savings by Design program (Note: U-value and SHGC ratings should be based on a 20 degree ratings, now standard through the National Fenestration Rating Council (NFRC)):

    - Maximum U-factor of 0.75
    - Maximum solar heat gain coefficient of 0.35
    - Minimum visible transmittance of 0.45

- Skylight can be in a toplighting configuration only.
- Skylight area may not exceed 3% of the gross roof area.
- Skylights must be certified by the National Fenestration Rating Council (NFRC).
- If artificial lighting systems remain a part of the installation, the system shall include automated lighting control(s) which are programmed to keep electric lights off/dimmed during daylight hours of sufficient solar insulation to provide minimum design illumination levels.
- The system will have a material and labor warranty of at least five years.

Installation Guidance

All systems should be installed such that the skylight dome is substantially unshaded and have substantially unobstructed exposure to direct sunlight between the hours of 9 a.m. and 3 p.m.

Small Wind Generator

A small wind generator is a system with a nameplate rating of one MW or less. The technology criteria described below are intended for small wind generators with a nameplate rating of 100kW or less. Larger systems will be required to submit a detailed package describing site selection, energy production modeling, and an engineered system design and installation report.

Equipment Qualifications

- Eligible small wind systems must be certified and nameplate rated by the CEC.[5] See www.consumerenergycenter.org/erprebate/equipment.html for a list of certified generators. For grid-tied wind generators where an inverter is used, the CEC listed nameplate rating of the wind generator will be multiplied by the CEC approved weighted efficiency percentage listed for the inverter in the "List of Eligible Inverters" at www.consumerenegycenter.org/cgi-bin/eligible_inverters.cgi to calculate the wind turbine nameplate rating for use in determining the UFI payment.
- Grid connected inverters used as part of the system shall carry a UL listing certifying full compliance with Underwriter's Laboratory ("UL")-1741
- A system must include a dedicated performance meter installed to allow for measurement of the amount of electricity produced.

[5] MWE notes that the Uniform Credit Purchase Program ("UCPP") Working Group had recommended review of the SWCC standards for rating small wind generators once they become available for purposes of supplanting the CEC requirement in this Technology Criterion.

- The performance meter and utility disconnect will be installed in a location readily accessible to MWE during normal business hours.

- The tower used in the installation must be designed by an Arizona registered engineer and must be suitable for use with the wind generator. Tower installation must be designed and supervised by individuals familiar with local geotechnical conditions.

- The wind generator and system must include a 10-year manufacturer's warranty and a material and labor warranty of at least five (5) years.

Installation Guidance

- Location: a wind turbine hub should be at least 20 feet above any surrounding object and at least 28 feet above the ground within a 250-foot radius. Wind generators should be installed in locations with an elevation at or above the general elevation of the surrounding terrain.

- Lot Size: should be at minimum one-half acre. Municipalities and public facilities such as schools and libraries are exempt from the minimum lot size requirements. This is to ensure there is ample space to safely accommodate any small system, and incorporated this requirement based on its review of approved plans for other Arizona utilities, and is in lieu of any other height or setback requirements that MWE could put into place.

The Applicant should demonstrate its proposed system is able to obtain at least a 15% annual capacity factor. The following are readily available methods for helping to demonstrate the potential for a 15% capacity factor, but other methods may be used. The installation location should have a demonstrated average annual wind speed of at least 10 MPH as measured at a height of no more than 50 feet above the ground. Average annual wind speed can be demonstrated by wind speed records from an airport, weather station or university within 20 miles of the proposed wind generator location, or by a 50 meter wind power density classification of Class 2 "Marginal" or higher on the "State of Arizona Average Annual Wind Resource map dated July 16, 2005 or later as published by Sustainable Energy Solutions of Northern Arizona University. Northern Arizona University provides detailed wind resource maps as well as other resource services. For more information contact Northern Arizona University at http://wind.nau.edu/maps/.

Solar Space Cooling

Equipment Qualifications

- The minimum cooling capacity of the system will be 120,000 BTU (10 tons) per hour.

- Solar collector panels used will have a Solar Rating and Certification Corporation ("SRCC") OG-100 rating or laboratory documentation showing the panel energy output under controlled and replicable test conditions.

- Energy savings and designed output for the system will be verified by submitting either a testing certification for a substantially similar system prepared by a publicly funded laboratory or by submitting an engineering report stamped by a registered professional engineer. The engineering report shall provide a description of the system and major components, design criteria and performance expectations, applicable standards and/or codes, and a brief history of components in similar applications.

- System must include a dedicated performance meter to allow for monitoring of the amount of heat input to the thermal cooling device or system. Energy production will be calculated at one kW-hr per 3,415 Btu of metered heat delivered to the thermal cooling device or system.

- The system must have a material and labor warranty of at least five (5) years.

Installation Guidance

- The horizontal tilt angle of the collector panels should be between 20 and 60 degrees and the panel orientation should be between +/- 45 degrees of south.

- All systems should be installed such that the energy collection system is substantially unshaded and should have substantially unobstructed exposure to direct sunlight between the hours of 9 a.m. and 3 p.m.

- The system installation should comply with the design manual.

Non-residential Solar Water Heating and Space Heating

Equipment Qualifications

- Solar collector panels used will have a SRCC OG-100 certification or laboratory documentation showing the panel energy output under controlled and replicable test conditions.

- The system must include a dedicated performance customer-supplied meter to allow for monitoring of the amount of useful heat produced – if annual energy production is expected to exceed 10,000 kWh or equivalent. Otherwise, compliance reporting production will be based on the design energy savings submitted at the time of application.

- Energy savings and designed output for the system will be verified by submitting either a testing certification for a substantially similar system prepared by a publicly funded laboratory or by submitting an engineering report stamped by a registered professional engineer. The engineering report shall provide a description of the system and major components, design criteria and performance expectations, applicable standards and/or codes, and a brief history of components in similar applications.

- The solar collector, heat exchangers and storage elements must have an equipment warranty of at least 10 years and the entire system must have a material and full labor warranty of at least five (5) years.

Installation Guidance

- The horizontal tilt angle of the collector panels should be between 20 and 60 degrees and the panel orientation should be between +/- 45 degrees of south.

- All systems should be installed such that the energy collection system is substantially unshaded and should have substantially unobstructed exposure to direct sunlight between the hours of 9 am and 3 pm.

- The system installation should comply with the design manual.

Small Residential Solar Water Heating and Space Heating

Equipment Qualifications

- Residential (*i.e.*, Domestic) Solar Water Heating systems will be rated by the SRCC and meet the OG-300 system standard. Systems that include OG-100 collectors but are not certified under OG-300 will need to be verified by submitting either a testing certification for a substantially similar system prepared by a publicly funded laboratory or by submitting an engineering report stamped by a registered professional engineer detailing annual energy savings. Solar Space Heating systems will utilize OG-100 collectors.

- Residential Water Heating systems shall be selected and sized according to the geographic location and hot water needs of the specific application. Reservation requests will include a manufacturer's verification disclosing that the system size and collector type proposed is appropriate for the specific application. The manufacturer's verification may be presented as a manufacturer's product specification sheet and will be included in the reservation request.

- Solar Space Heating systems will be sized in conformance with the Solar Space Heating Incentive Calculation Procedure attached to MWE's REST Plan as Exhibit 1.

- Active, open-loop systems are not eligible for any incentives except for active, open-loop systems that have a proven technology or design that limits scaling and internal corrosion of system piping, and includes appropriate automatic methods for freeze protection and prevents stagnations temperatures that exceed 250 degrees Fahrenheit under all conditions at the location of installation. Details disclosing conformance with this exception shall be submitted as part of the manufacturer's verification documentation.

- Integrated Collector System ("ICS") systems shall have a minimum collector piping wall thickness of 0.058 inches. Details disclosing conformance with this requirement must be submitted as part of the Manufacturer's verification documentation. ICS units must include certification that collector stagnation temperature will never exceed 250 degrees Fahrenheit under any possible conditions at the location of the installation.

- The 'high' limit on all Residential Water Heating controllers shall be set no higher at 160 degrees Fahrenheit.

- Active thermal storage for solar space heating systems shall use water as the storage element.

- Contractors must provide minimum of a five-year equipment warranty as provided by the system manufacturer, including a minimum warranty period of five (5) years for repair/ replacement service to the customer.

- Residential Water Heating systems that are installed as an addition to an existing system or are submitted as a customer-designed system or not certified to OG-300 must be specifically reviewed and approved by the utility.

- The solar collector, heat exchangers and storage elements must have an equipment warranty of at least 10 years.

Installation Guidance

- The system shall be installed with a horizontal tilt angle between 20 degrees and 60 degrees, and azimuth angle of +/- 60 degrees of due south. It is recommended that collectors be positioned for optimum winter heating conditions at a minimum tilt angle of 45 degrees above horizontal, or as recommended by the manufacturer for the specific collector type and geographic location of installation.

- All systems should be installed such that the energy collection system is substantially unshaded and should have substantially unobstructed exposure to direct sunlight between the hours of 9 a.m. and 3 p.m.

- Heat exchange fluid in glycol systems should be tested and flushed and refilled with new fluid as necessary or every five (5) years or sooner per manufacturer's recommendations.

- It is recommended that the anode rod be checked and replaced per manufacturer's recommendations, but no less frequently than every five (5) years.

- It is recommended that the system design include a timer, switch, or other control device on the backup element of the storage tank.

- The collectors and storage tank should be in close proximity to the backup system and house distribution system to avoid excessive pressure or temperature losses.

- It is recommended that in areas where water quality problems are reported to have reduced expected life of a solar water heater, that a water quality test is performed for each residence to screen for materials that through interaction with the materials of the proposed system may reduce the expected operational life of the system components. The customer should consider contacting the manufacturer to determine if warranty or operational life will be affected.

- In areas subject to snow accumulation, sufficient clearance will be provided to allow a 12" snowfall to be shed from a solar collector without shadowing any part of the collector.

- Each system should have a comprehensive operation and maintenance manual at the customer's site – including a spare parts list, data sheets, and flow diagrams indicating operating temperatures and pressures, maintenance schedules and description of testing methods. Further, each customer must complete an initial startup and operation training review with the contractor at the time of system start up.

- Ball valves should be used throughout the system. Gate valves should not be used.

- Pipes carrying heated fluids shall be insulated for thermal energy conservation as well as personnel protection when exposed to ambient conditions, although this is highly recommended in either situation.

Biogas/Biomass Thermal, Geothermal – Space Heating and Process Heating (including Residential or Commercial Ground Source Heat Pumps)

Equipment Qualifications

- Biomass/Biogas or geothermal system installations involving a regulated boiler or pressure vessel are required to comply with all Arizona state boiler regulations; provide a qualifying boiler inspection identification number; and keep all applicable permits in good standing.

- Energy savings and designed output for the system will be verified by submitting either a testing certification for a substantially similar system prepared by a publicly funded laboratory or by submitting an engineering report stamped by a registered professional engineer. The engineering report shall provide a description of the system and major components, design criteria and performance expectations, applicable standards and/or codes, and a brief history of components in similar applications.

- Energy production for space heating, space cooling and process heating will be calculated as one kWh of energy per 3,415 Btu of useful heat delivered by the system as measured by a dedicated heat delivery measuring meter and used by the building space or process.

- The system will have a material and labor warranty of at least five years.

- The system must meet ADEQ environmental standards.

- For Residential and Commercial Ground Source Heat Pumps, the most current Energy Star Standards must be achieved. These can be found at: http://www.energystar.gov/index.cfm?c=geoheat.prcritgeoheatpumps.

Installation Guidance

Because of the individual nature of biomass/biogas or geothermal systems, care should be taken to make sure the system complies with all applicable permitting and regulatory requirements including, but not limited to, air emission standards and air permit regulations.

Technologies without Technology Specific Criteria and Non-Conforming Projects

MWE is not aware of any technology-specific criteria developed for the following qualifying technologies:

- Biogas/Biogas Combined Heat and Power ("CHP")
- Fuel Cells
- Other

For applicants requesting incentives for the above technologies or for applicants requesting installation of a technology with conforming project technology criteria but where some criteria cannot be met, the applicant will need to submit design and output documentation.

Applicants installing these systems will at minimum need to provide an energy savings and designed output report for the system. The report must include either a testing certification for a substantially similar system prepared by a publicly funded laboratory or an engineering report stamped by a registered professional engineer. The engineering report and/or testing certification shall provide a description of the system and major components, design criteria and performance expectations, applicable standards and/or codes, and a brief history of components in similar applications. Additional information may be required as part of the utility specific Uniform Credit Purchase Program ("UCPP") requirements.

Installation

The installer for any and all distributed renewable energy systems must possess a valid license on file with the Arizona Registrar of Contractors ("AZROC"), with a license classification appropriate for the technology being installed, or the installer must identify use of a contractor holding an appropriate license on file with the AZROC for the technology being installed. The installer must also have proof of liability insurance, which is to be provided when Applicant submits the application. Further, any equipment dealer must provide proof of a business license showing that the dealer is in good standing with the appropriate agency(ies) and must also provide proof of liability insurance.

Reporting Requirements

Applicants must submit a report demonstrating energy savings and that projected output will be achieved. The report must show that the distributed renewable energy system meets all applicable requirements including – if necessary – testing certification and/or an engineering report stamped by a registered professional engineer. The report must also describe the system and its major components and include designed performance and system output.

Inspections

Any and all distributed renewable energy systems must be inspected by the entity having authority to inspect construction projects within MWE's certificated service area. MWE's inspections are in addition to, and not instead of, any building and construction-related inspections. MWE must have access to any distributed renewable energy system during normal business hours for any inspection by MWE. MWE will inspect any and all grid-tied systems to ensure the system is connected to the grid in conformance with MWE's interconnection requirements. Under no circumstances is any grid-tied system to be installed in parallel or otherwise connected with the MWE system until the time that MWE has inspected the distributed renewable energy system and gives written authorization. This inspection will only take place after the appropriate building and construction-related inspection has been performed.

Further, MWE may conduct further inspections to ensure any distributed renewable energy system continues to conform to applicable codes, regulations and standards. MWE will conduct these inspections solely within its discretion. MWE may also conduct other inspections to ensure the system is operated in compliance with the Applicant's original request and the Company's approval of the request.

Metering

All distributed renewable energy systems must include a system-dedicated kWh performance meter, which allows MWE to measure system energy production. The Applicant must include performance meters as part of the system designed and the Applicant will be responsible for the cost of the performance meter. The performance meter must be installed according to MWE's meter installation standards and is subject to inspection. These meters are in addition to billing meters and must be calibrated to meet industry standards and provide direct kWh readings.

Those customers who receive distributed renewable generation incentives are also eligible to receive benefits under net metering. The Commission approved Net Metering Rules in Decision No. 70567 (October 28, 2008). Those rules have been filed with the Arizona Secretary of State on March 24, 2009, and became effective May 23, 2009. The Commission approved MWE's net metering tariff in Decision No. 71858 (September 1, 2010).

System Operation and Maintenance

An Applicant must operate and maintain any distributed renewable energy system appropriately and must do so for the duration detailed in his or her request and the Company's approval of such request.

If an Applicant fails to maintain and operate the distributed renewable energy system in MWE's certificated service area for the period detailed in the MWE's approval of the application, then Applicant will be in default of the terms and conditions of the agreement between Applicant and MWE. Applicant will be responsible for reimbursing

MWE the total amount of the incentive payment. In addition, liquidated damages may also apply. MWE, however, has the ability in its sole discretion to determine that the distributed renewable energy system is not operational due to equipment malfunction or other disrepair; further Applicant will and is making best efforts to repair the system and return it to an operable condition. In that case, the reimbursement requirement will not apply.

Should a system cease to be operational, the Applicant must notify MWE within five (5) business days after the distributed renewable energy system is either removed from the property or fails to be operational. Short outages (lasting less than 30 days) that are for planned maintenance or system repair are not part of this requirement.

An Applicant who has been in default at any time will be completely disqualified for any future funding permanently.

Sale of Property

Applicant must notify MWE if Applicant sells the property on which the distributed renewable energy system is located by notifying MWE in writing. Applicant may be required to reimburse payment incentive and may be determined to be in default – unless the subsequent owner agrees in writing to operate and maintain the distributed renewable energy system per the terms and conditions agreed to between Applicant and MWE.

In any event, Applicant or its assignee would be required to notify MWE of the sale of property for the entire term of the 20-year agreement.

Renewable Energy Credits

MWE will receive complete and irrevocable ownership of all Renewable Energy Credits (RECs) expected from system production for the effective life of the distributed renewable energy system – when it makes any incentive payment to an Applicant. These RECs will be applied toward MWE's requirements under the REST Rules.

All RECs derived from any Applicant receiving incentive payment(s) for any distributed renewable energy system, including generation and Extra Credit Multipliers, will be applied to satisfy MWE's Annual Renewable Energy Requirement and Distributed Renewable Energy Requirement.

Incentives

Any incentive payment will be a one-time up-front payment and will be determined based on system capacity (Watts) and/or estimated annual production (kWh), as well as based on a 20-year agreement with MWE. The following chart highlights the incentives per type of eligible Distributed Renewable Energy Resource:

Type	2013 – 2017
Biomass/Biogas (Electric, Thermal, Cooling)	To be determined ("TBD")
Biomass/Biogas CHP (Electric, Thermal)[6]	TBD
Daylighting[7]	$0.20 / kWh
Geothermal (Electric)	$0.50 / Watt
Geothermal (Thermal)	$1.00 / Watt
Hydroelectric	TBD
Small Wind	$2.50 / Watt AC
Solar Electric – Residential[8]	$4.00 / Watt DC
Solar Electric – Non-Residential[9]	$3.50 / Watt DC
Solar Space Cooling[10]	TBD
Non-Residential Solar Water Heating / Space Heating[11]	TBD
Residential Solar Water Heating / Space Heating[12]	$0.75 / kWh for projected first year savings.
Non-Residential Pool Heating	TBD

The incentives identified in the chart were derived from the UCPP Working Group Project Incentive Matrix. For those categories where the incentive is "TBD" (to be determined) the incentive amounts will be determined on a case-by-case basis and will include consideration of capital costs, capacity (kW), and estimated annual production (kWh).

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[6] The CHP incentives may be used in combination for the appropriate components of one system.

[7] Rate applies to first year energy savings only.

[8] Some installations may require an adjustment of the incentive. As stated in the technical specifications for photovoltaic installations, reduced incentives may apply if panels and modules are shaded, or are facing at an angle more than 20 degrees from due south. Reduced incentives may also apply if the elevation angle is not between 20 and 35 degrees.

[9] Some installations may require an adjustment of the incentive. As stated in the technical specifications for photovoltaic installations, reduced incentives may apply if panels and modules are shaded, or are facing at an angle more than 20 degrees from due south. Reduced incentives may also apply if the elevation angle is not between 20 and 35 degrees.

[10] Solar space heating and cooling incentives may be used in combination for the appropriate components of one system.

[11] Solar space heating and cooling incentives may be used in combination for the appropriate components of one system.

[12] This category includes both traditional water heating and those systems combined with residential solar water heating used for space heating. Space heating applications require a report detailing energy savings for the complete system. Rate Applies to First Year Energy Savings Only. Energy savings rating is based on the SRCC OG-300 published rating or the Uniform Credit Purchase Program Space Heating Calculator. The customer contribution must be a minimum of 15% of the project cost after accounting for and applying all available Federal and State incentives.

Incentives will be dealt on a first-come first-serve basis and it is MWE's intent to split total annual incentive payments to make best efforts to comply with the requirement that 50% of its annual Distributed Renewable Energy Requirement comes from eligible residential Distributed Renewable Energy Resources. Eligibility requirements for which an Applicant may receive incentive payments to develop and install distributed renewable energy resources are described in the Company's scheduled entitled "Applications for Distributed Renewable Energy Resources Schedule" – Sheet No. 31.0 – that was approved in Decision No. 71469 (January 26, 2010).

Funds for incentive payments are made available for distributed renewable energy systems on the first working day after January 1st of each calendar year. If funds collected for MWE's distributed renewable energy system are not used during the calendar year, they will then be applied to the next calendar year. *MWE will only accept applications for as long as funds are available. Once funds are expired, those seeking incentives will have to wait until when funds are available for incentives to apply.*

Funds for any one project will not exceed 60% of the total cost of the project. This 60% cap will apply to entire system costs for the project (*i.e.*, including financing costs). But at no time will more than $75,000 be provided in incentives for any one project. This $75,000 cap will include the costs of financing (*i.e.*, no more than $75,000 will be provided towards the total system cost of any one project).

Distributed Renewable Energy System Program Monitoring

MWE will track progress toward program goals by compiling data received from conducting maintenance inspections, meter readings and analyzing trends in customer participation and technology installation. New information, changing market conditions, changing assumptions and/or technological innovations may lead to changing certain facets of the REST Plan for eligible Distributed Renewable Energy Resources. MWE will bring those issues to the Commission's attention in a timely manner. MWE will report on the productivity for all distributed renewable energy systems annually by reporting on the total installed capacity and projected productivity. MWE will also continue to participate in the "Go Solar Arizona" website development as ordered in Decision No. 71469.

System Removal

No qualifying system or any components of that system will be removed (by either the application or future owners or occupants of the property) until December 31st of the 20th full calendar year following completion of system installation of the renewable energy system, without express agreement of MWE.

If a system is removed by any party in violation of this provision, then the customer must immediately reimburse MWE all incentive amounts paid to customer by MWE or on behalf of customer to an authorized third party. *This requires applicant or assignee to*

reimburse MWE a pro-rata share of incentive payments in accordance with the Distributed Renewable Energy Application.

Should a distributed renewable energy system be removed before its agreement term expires and without MWE's permission – or if an Applicant does not repair a system – then MWE will continue to reflect in the annual compliance reporting the annual historic energy production for the system until the agreement term for the system has been completed. The actions MWE would take, if any, to address removal of the system contrary to the agreement or failure to make needed repairs to a system would depend on the particular circumstances of the removal. MWE would note – in its annual compliance reporting – that the system had been removed and what the annual historic energy production had been before the system was removed.

Application Process

1. **Applicant submits a Distributed Renewable Generation System Reservation Application to MWE (i.e. "the Application").**

   This includes any and all required interconnection documentation.

2. **Applicant receives approval from MWE.**

   This approval will be a written agreement between Applicant and MWE, and will constitute the terms and conditions that Applicant must agree to in order to receive any incentive payment. The approval will detail the time period for which the agreement applies. The approval will constitute the entire agreement between the Applicant and MWE regarding the specific distributed renewable energy system contained within the application. The approval will also specify a timeframe for which Applicant has to install and receive all approvals before having to place system in operation. Should Applicant fail to do so, then the approval will be automatically terminated and Applicant will have to submit a completely new application.

   If the application is deficient, MWE will inform the Applicant of the nature of the deficiency(ies). Applicant will have an opportunity to correct the deficiency(ies) within a specific time period indicated on MWE's notification of deficiency. If deficiencies are not addressed within that time period to MWE's satisfaction, then the application will automatically be deemed denied. If an application cannot be approved because funding is not available, then the application will be put on a waiting list and MWE will send written notification to the Applicant.

   MWE anticipates reviewing an application within 30 days of receipt (Step 2 of the Application Process). MWE would, under normal circumstances, provide an applicant up to 60 days to correct any deficiencies, but could be flexible depending on the demand for incentives at that time.

3. **Applicant agrees to terms and conditions contained in the approval through written and signed confirmation explicitly agreeing to those terms and conditions.**

4. **Applicant submits proof – no later than 90 days before installation – that Applicant is going forward with installing the distributed renewable energy system approved.**

   This is to ensure that funds are reserved to projects that will actually be installed.

   The proof would include the following: (1) a project agreement; (2) an executed installation agreement including all project participants; (3) building and/or construction permits and/or a full set of design development or construction drawings (80% or more complete); and (4) an executed interconnection agreement.

5. **Applicant submits a system design for review and approval by MWE.**

   MWE must approve system design before Applicant proceeds with installation.

   The level of detail would be that required to ensure that the system conforms with all technical requirements in the plan and that all interconnection requirements are met, including a full set of construction development or construction drawings (80% or more complete), but MWE will work with the customer to ensure adequate level of detail is provided.

6. **Applicant has system installed. MWE inspects the system to ensure it is connected to the grid per MWE's interconnection requirements.**

   This will take place after MWE receives proof that the system has been inspected by the appropriate entity to inspect construction and building. Applicant also must include proof that installation has been performed per the terms and conditions of the REST Plan. MWE will provide Applicant with written confirmation that the system passed its installation inspection. At no time will Applicant make any material change from the approved application without prior written consent from MWE.

   Applicant must submit a Proposed Modification to Application in order to receive such written consent. MWE will then determine whether additional funding is available, should additional funding be requested or required due to the material change. Should additional funding not be available, then Applicant will only receive the incentive payment amount originally approved.

7. **Applicant receives one-time up-front incentive payment.**

   Once a system passes its installation inspection and receives written confirmation, MWE anticipates providing applicant with an incentive payment within 30 days.

MWE anticipates the entire process to take 180 days from the point MWE approves an application.

Eligibility Requirements

Eligibility requirements are set forth in the Company's schedule entitled "Applications for Distributed Renewable Energy Resources Schedule" – Sheet No. 31.0 – that is approved in Decision No. 71469. Any customer of MWE is eligible to apply for and, if approved, receive incentive payment for an eligible Distributed Renewable Energy Resources as defined in A.A.C. R14-2-1802.

1. The Applicant must apply for – and receive approval for – funding in accordance with the procedure set forth above.

2. The distributed renewable energy system must be established physically within the Company's certificated service area.

3. Any project applied for must meet the requirements for a Distributed Renewable Energy Resource described in the Arizona Corporation Commissions' REST Rule A.A.C. R14-2-1802.

4. The Company will assume no liability for any incentive payment subsequently assigned to third party(ies) from the Applicant.

All Renewable Energy Credits ("RECs") derived from any Applicant receiving incentive payment(s) for any distributed renewable energy system, including generation and Extra Credit Multipliers, will be applied to satisfy MWE's Annual Renewable Energy Requirement and annual Distributed Renewable Energy Requirement.

Self-Direction

Any customers paying Tariff funds of at least $25,000 annually for any number of related accounts or services within an Affected Utility's service area are eligible for the Customer Self-Directed Renewable Energy Option. That Schedule – approved in Decision No. 71469 (Sheet No. 32.0) – details the requirements to be met when submitting a written application. One half of the funding must come from the Eligible Customer for each project proposed. Per A.A.C. R14-2-1809.C., all RECs derived from the project(s) will apply to satisfy MWE's Annual Renewable Energy Requirement.

The application process will be similar as for other customers applying for incentive payments for eligible Distributed Renewable Energy Resources. Eligible Customers may use this option for any distributed renewable energy system either proposes to receive funding, if they pay Tariff funds that equal or exceed $25,000 annually aggregated for all accounts and services.

5. Budget

MWE's actual costs remain uncertain and subject to various factors outside of its control. MWE is unsure what Eligible Renewable Energy Resources it will procure in 2013 and in future years. Much depends on what it can procure and deliver to its remote service

territory. For these reasons, MWE also cannot predict with any accuracy what the separate line-item costs will be for administration, implementation, commercialization and integration, and marketing and outreach.

Further, MWE has seen only limited customer interest in pursuing installation of eligible Distributed Renewable Energy Resources, but only from non-residential customers. As stated earlier, approximately 1,171 of MWE's residential customers are renters within the Morenci town-site. There may also be additional customers residing in the Town of Clifton who are also renters. Customers may not be willing or able to finance such systems even after receiving incentives to cover a significant amount of the cost. For these reasons, the figures contained in the following budget, especially regarding procuring eligible Distributed Renewable Energy Resources, remain preliminary estimates – with Energy Sales to FMI mining operations at Morenci and Safford excluded.

Regarding the distributed incentive line-item in the budget, MWE submits a budget that meets its understanding of the intent of A.A.C R14-2-1813. But because interest in distributed renewable generation is limited to the three installations mentioned in Section 4, MWE cannot currently justify increasing the per-kWh rate or caps to the levels of the estimated budget designed to meet the REST standards. MWE anticipates that whatever is not necessary to procure its non-distributed Annual Renewable Energy Requirement would be available for distributed incentives (about $34,000 in 2013 and about $59,000 in 2014).

MWE's Estimated RES Budget ($'s)

	2013	2014	2015	2016	2017	Total
Renewable Energy Resources						
Total Energy – Prospective Procurement (Eligible Renewable Resources)[13]	40,320	45,360	50,400	60,480	70,560	267,120
Utility-Owned Systems	0	0	0	0	0	0
Administration, Implementation, Commercialization & Integration	5,000	400	400	5,000	5,000	15,800
Renewable Energy – Subtotal	**45,320**	**45,760**	**50,800**	**65,480**	**75,560**	**282,920**
Distributed Renewable Energy Resources						
Incentives[14]	549,285	630,816	712,346	875,407	1,038,468	3,806,322
Customer Self-Directed Renewable Energy Option[15]	0	0	0	0	0	0
Administration, Implementation, Marketing & Outreach, Commercialization & Integration.	5,000	5,000	5,000	5,000	5,000	25,000
Distributed Energy – Subtotal	**554,285**	**635,816**	**717,346**	**880,407**	**1,043,468**	**3,831,322**
TOTAL	**599,605**	**681,576**	**768,146**	**945,887**	**1,119,028**	**4,114,242**

MWE will continue to rollover any unused RESS funds from previous years to be used towards the REST Rules requirements in subsequent years.

[13] Assuming the renewable premium remains at $45 per MWh. MWE may procure future years requirements (including for 2014 and 2015) in 2013 for reasons explained in Section 3 of this plan.

[14] This assumes the cost of installing solar photovoltaic systems with an average installation cost of $6.20 per watt as reported in the Lawrence Berkeley National Laboratory (LBNL) report entitled "Tracking the Sun: The Installed Cost of Photovoltaics in the U.S. from 1998-2010" Ryan Wiser, Naim Darghouth, Galen Barbose and Joachim Seel, (LBNL-5047E, September 2011) available at http://eetd.lbl.gov/ea/ems/reports/lbnl-5047e.pdf. Further, these figures assume a 25% annual capacity factor and that MWE provides incentives equaling 60% of the total cost to install the requisite number of systems to meet the requirements each year. Finally, depending on the number of systems already installed still in operation from previous years, the amount in incentives could be significantly less the following year.

[15] MWE considers this option to be a subset of the total Distributed Energy Incentive budget.

MWE may consider participating in existing and future studies to enhance and accelerate the development, deployment, commercialization and use of renewable resource technologies to the benefit of MWE customers.

RES funding is intended to cover the cost of utility scale renewable generation in excess of the cost of conventional generation resource alternatives, incentive payments for distributed renewable energy resources, marketing expenses and program implementation and administration.

As of July 1, 2012, MWE anticipates having roughly $90,000 available to procure its 2013 non-distributed Annual Renewable Energy Requirement (and will likely procure its requirement in future years in 2013). This is due to the anticipated carryover of available funds collected but not used in 2012 and prior years. MWE spent approximately $141,000 in 2009 to cover this requirement through 2012. Any amount not used to purchase that requirement will be available for distributed renewable energy incentives.

6. Surcharge

Currently, MWE collects a RESS. The RESS was established in Commission Decision No. 70303 (April 24, 2008) as part of its initial REST Plan in 2008. The Company currently collects $0.004988 per kWh through the RESS capped at:

- $1.05 per month for each residential customer;
- $39.00 per month for each non-residential customer;
- $500.00 per month for each non-residential customer with demand over 3 MW per month for three consecutive months.

The RESS is shown as a separate item on customer bills, in accordance with MWE's RESS Schedule – Sheet No. 33.0. *For 2013-14, MWE proposes to maintain the surcharge at the current rates and caps, so that funds are available for future procurements and incentives.*

From January through December 2011, MWE collected approximately $50,000 – or about $4,157 per month – through the RESS. For 2012, MWE anticipates that it will collect approximately $59,000 annually through the RESS. Of that MWE expects about 34% to be funded by residential customers. MWE anticipates collecting an average of $4,923 per month in 2012. The following table shows: (1) the percentage of customers that reach the monthly RES surcharge cap, by customer class; (2) the average monthly RES surcharge, by customer class; and (3) the total monthly collection of RES surcharge funds, by customer class (in 2012).

	Avg # of Customers	Avg Total Monthly RESS	Avg Monthly RESS Bill	% of Customers to Reach Max
Residential	2,104	$1,662	$0.79	75%
Non-Residential	266	$2,261	$8.50	25%
Non-Residential (>3MW)	2	$1,000	$500.00	100%
Total	**2,372**	**$4,923**	**N/A**	**46%**

Based on its number of customers as of December 31, 2011, for 2013, the *maximum* amount MWE could collect a maximum of approximately $163,000. But it is unlikely MWE would collect the maximum amount. The non-residential customers with demand under 3 MW (using an average of about 4,722 kWh per month) will pay about $23.56 per month. Below is the average amount different types of customers would be assessed though the RESS:

Sample Customers	**Average kWh per Month**	**Monthly RESS ($'s) (Present)**
PD Store	221,350	$39.00
High School	93,200	$39.00
Motel	45,000	$39.00
Conoco	23,460	$39.00
Circle K	23,100	$39.00
LDS Church	5,945	$29.65
Restaurant	5,225	$26.06
Florist	1,872	$9.33
Insurance Company	992	$4.95
American Legion	306	$1.53
Fashion Salon	230	$1.14

MWE does not believe raising the RESS rates or caps is necessary or appropriate at this time. This is because there has not been any further interest from customers to install distributed renewable generation at their premises. MWE may file to amend the RESS if and when customer interest is at level and should it become apparent that more funding is necessary to accommodate that demand

EXHIBIT

"1"

Solar Space Heating UFI Incentive Calculation Procedure.

In Advance, please perform the Design Review and Utility Bill Review (if Applicable) for numbers to enter in Steps #1, #2 and #5.

Elevation Zone Table:

Min Elevation	Max Elevation	Heating Season Days	Daily Panel Heat Output
-1000	1000	105	0
1001	3000	140	0
3001	5000	175	0
5001	7000	210	0
7001	9000	245	0
9001	11000	280	0

Collector Thermal Performance Rating
Data From OG-100 Sheet

Category:	Delta T	Clear Day
A	-9 Deg. F.	0
B	+9 Deg. F.	0
C	+36 Deg. F.	0
D	+90 Deg. F.	0
E	+144 Deg. F.	0

Enter Solar Panel Make and Model Number Selected for Project:

Step #1:	Enter the result of the Design Review of the Design Annual Building Loss =	0	BTU/Year
Step #2:	Enter the result of the Utility Bill Review of the Actual Annual Building Loss: (If not Electric, Natural Gas or Propane Heat, enter 0) =	0	BTU/Year
Step #3:	Calculate the Lesser of the Result in Step #1 & Step #2 = This is the Annual Building Heat Requirement.	0	BTU/Year
Step #4:	Enter Elevation of the Solar Space Heated Building:	0	Feet AMSL
Step #4 cont:	Number of Heating Days per Heating Season from Elevation Zone Table:	105	Days per Year
Step #4 cont:	Calculate Average Daily Building Heat Requirement =	0	BTU/Day
Step #5:	Enter Passive Heat Storage Specific Heat Capacity from Building Design Review:	0	BTU/Deg. F.
Step #5 cont:	Enter Maximum Daily Room Temperature Variation Allowed by Building Occupants: (Max of 10 Degrees F.)	0	Degrees F.
Step #5 cont:	Calculate Maximum Passive Heat Storage Capacity =	0	BTU
Step #5 cont:	*Enter Total Active Heat Storage Heat Capacity from Building* Design Review:	0	BTU
Step #5 cont:	Calculate Maximum Total Heat Storage Capacity =	0	BTU
Step #6:	Calculate the Lesser of the Average Daily Building Heat Requirement in Step #4 and the Maximum Total Storage Capacity in Step #5. This is the Maximum Useful Daily Solar Heat Input.	0	BTU/Day
Step #7:	Size the Solar Panels based on a total daily solar heat input no greater than the Maximum Useful Daily Solar Heat Input. Enter the *single panel SRCC OG-100 Collector Thermal Performance Rating* data in the Table Above.	0	BTU/Day per Panel
Step #7cont:	Enter the Total number of solar panels to be installed:	0	# of Panels
Step #7cont:	Calculate the Average Expected Daily Solar Heat Input:	0	BTU/Day
Step #8:	Calculate the Expected Annual Useful Solar KWH Heat Input using the Number of Heating Days times the Average Expected Daily Solar Heat Input / 3415 BTU/KWH:	0	KWH/Year
Step #9:	*Enter the UFI per first year KWH UCPP Incentive Rate:*	$0.75	$/KWH
Step #9 cont:	Calculate the Total Maximum UFI Payment Subject to Possible Limitation by the 50% of Initial Cost Cap & 15% Minimum Customer Contribution:	$0.00	$
Step #10:	Enter the Total Solar Space Heating System Initial Cost: This should not include costs for Passive Heat Storage or Building Heating System.	$0.00	$
Step #10 cont:	Calculate the Total Expected Federal and Arizona Incentives for this Project:	$0.00	$
Step #10 cont:	Calculate the 15% minimum of the Total Solar Space Heating *System Initital Cost to be paid by Customer*	$0.00	$
Step #10 cont:	Calculate the Total Actual UFI Payment:	**$0.00**	**$**